

# Māori Health Review™



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Issue 75 – 2018

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### Abbreviations used in this issue

- BMI** = body mass index  
**CMD** = cardiometabolic disease  
**GP** = general practitioner  
**IHD** = ischaemic heart disease  
**NZHS** = New Zealand Health Survey  
**OR** = odds ratio  
**RR** = relative risk

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Ngā mihi

**Matire**

Dr Matire Harwood

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## Caregiver experiences of racism and child healthcare utilisation: cross-sectional analysis from New Zealand

**Authors:** Paine SJ et al.

**Summary:** Using data from two instances of the New Zealand Health Survey (NZHS; 2006/2007 and 2011/2012), these researchers analysed the prevalence of children's (0–14 years) exposure to racism via caregiver experience (vicarious racism) and investigated the association between vicarious racism and measures of low child healthcare utilisation. The analysis included 4,535 child–primary caregiver dyads from the 2006/2007 NZHS and 4,420 dyads from the 2011/2012 NZHS. Caregivers of indigenous Māori and Asian children were more likely to report 'any' experience of racism (30.0% for both groups in 2006/2007) compared with caregivers of European/Other children (14.4% in 2006/2007). Children of caregivers who reported 'any' racism were more likely to have an unmet need for healthcare (OR 2.30; 95% CI, 1.65 to 3.20); those caregivers were more likely to be dissatisfied with their child's medical centre (OR 2.00; 95% CI, 1.26 to 3.16). A dose–response relationship was observed between the number of reported experiences of racism and child unmet need for healthcare (1 report of racism: OR 1.89; 95% CI, 1.34 to 2.67; ≥2 reports of racism: OR 3.06; 95% CI, 1.27 to 7.37). Vicarious racism was strongly associated with unmet need for healthcare in an unadjusted model for any racial discrimination (OR 2.53; 95% CI, 1.68 to 3.80) and in a model adjusted for ethnicity, gender and age (OR 2.34; 95% CI, 1.65 to 3.32). Adjusting for caregiver socioeconomic position had little impact on the association between caregiver experiences of racism and child healthcare utilisation (OR 2.30; 95% CI, 1.65 to 3.20), whereas the association was markedly attenuated after adjusting for caregiver psychological distress (OR 1.89; 95% CI, 1.14 to 3.12).

**Comment:** I personally remember a time I took my daughter to an after-hours centre and felt so humiliated by the way the GP spoke to me, as if we didn't 'count'. I made two decisions: 1. I wrote to the manager of the (Australian) clinic about my experience and asked that she send the GP to cultural safety training and 2. I would try not to treat patients, including caregivers, the same way. However, I hold a privileged position and these options are not 'available' for all. I completely understand that parents feel that they have no choice but to stay away from healthcare services after such a negative experience.

**Reference:** *Arch Dis Child.* 2018;103(9):873-9

[Abstract](#)

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## Vision 20:20 and indigenous health workforce development: Institutional strategies and initiatives to attract underrepresented students into elite courses

**Author:** Curtis ET

**Summary:** This book chapter discusses aspects of the *Vision 20:20* initiative based at the Faculty of Medical and Health Sciences (FMHS) in the University of Auckland. This initiative aims to achieve Māori and Pacific success within health, increasing the number of Māori and Pacific health professionals to 10% of the health workforce by the year 2020. Based on research findings and programme experience, 12 effective practices for tertiary institutional action are presented within the areas of: recruitment; admission; bridging/foundation education; and, retention. The chapter argues that tertiary institutions can (and should) support indigenous health workforce development by ensuring that their interventions are aligned with a widening participation and social justice agenda.

**Comment:** Given the recent attention in the media about recruitment of Māori into health studies, this article provides valuable evidence on the 'why' and 'how'. As the author suggests, key factors include Māori leadership of such programmes, and university commitment to supporting Māori rights to be doctors and healthcare providers.

**Reference:** In: *Shah M., McKay J. (eds) Achieving equity and quality in higher education. Palgrave Studies in Excellence and Equity in Global Education. Palgrave Macmillan, Cham.*

[Abstract](#)

## Trends in ischaemic heart disease: patterns of hospitalisation and mortality rates differ by ethnicity (ANZACS-QI 21)

**Authors:** Grey C et al.

**Summary:** These researchers examined trends in ischaemic heart disease (IHD) events by ethnicity among all New Zealand residents aged 35–84 years during the period 2006–2015. A total of 145,929 people in this cohort experienced ≥1 IHD hospitalisation and/or IHD death between 2006 and 2015. There was a steady decline in the number of people who experienced IHD events. However, while IHD mortality rates declined by 3.1–5.4% per year for most groups, the decline was only 1.3% per year among Pacific women. IHD hospitalisation rates declined significantly by 3.6–8.8% per year in all groups. Māori and Pacific people were over-represented for IHD mortality rates; Indians were over-represented for IHD hospitalisations. Indians also had the highest ratio of hospitalisations to deaths. For every person who died from IHD in 2014/15, 7–8 Indians compared with only 3–4 Māori or Pacific people were hospitalised with IHD.

**Comment:** An important reminder that IHD remains the most common cause of death for Māori. It is also the biggest contributor to the mortality gap between Māori and non-Māori, non-Pacific peoples. As the authors suggest, inequities appear to be due to differences in management at both primary and secondary care – more must be done to address this.

**Reference:** *N Z Med J. 2018;131(1478):21-31*

[Abstract](#)

## Characteristics of lung cancers and accuracy and completeness of registration in the New Zealand Cancer Registry

**Authors:** Lawrenson R et al.

**Summary:** These researchers combined lung cancer registration data from the Midland Lung Cancer Register (MLCR, including Lakes, Waikato, Tairāwhiti and Bay of Plenty District Health Boards) and clinical records, as well as from the New Zealand Cancer Registry (NZCR) for the period 2011–2015, to create a combined Midland Lung Cancer Dataset. The combined Midland Lung Cancer Dataset included 2,057 verified lung cancer registrations, including 656 (31.9%) Māori patients and 1,401 (68.1%) non-Māori patients. Compared with non-Māori, Māori patients were more likely to be diagnosed at a younger age, more likely to be female, more likely to be a current or ex-smoker and more likely to have SCLC. In adjusted analyses, Māori had a higher likelihood of SCLC than non-Māori (adjusted OR 1.55; 95% CI, 1.17 to 2.05). In logistic regression analyses, the likelihood of being diagnosed with SCLC was over 4-fold higher for current smokers (adjusted OR 4.06; 95% CI, 1.72 to 9.60) and nearly 3 times as likely for ex-smokers (adjusted OR 2.68; 95% CI, 1.14 to 6.30) compared to patients who never smoked.

**Comment:** A really important study that provides in-depth information about another major cause of death for Māori – lung cancer.

**Reference:** *N Z Med J. 2018;131(1479):13-23*

[Abstract](#)



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A report titled

## Te Ao Auahatanga Hauora Māori: Māori Health Innovation Fund – Analysis of Te Kākano Seeding Innovation 2013-17

was recently published on the Ministry of Health website.

Written for the Ministry by Sandy Kerr of Brown Research Limited, the report gives insight into a range of innovative models of service delivery trialled between 2013 and 2017 under the Te Kākano (seeding innovation) category of the Te Ao Auahatanga Hauora Māori: Māori Health Innovation Fund. It draws upon 22 individual programme evaluations that tell the innovation stories, and illustrates themes of success across the initiatives and discusses alignment to the Fund objectives, its overall aim and priorities.

Te Ao Auahatanga Hauora Māori: Māori Health Innovation Fund was established in 2009 to address the service gaps and unmet needs of Māori by the health system through trialling innovative models of service delivery by Māori health providers with the overall aim of achieving whānau ora.

<https://www.health.govt.nz/our-work/populations/maori-health/maori-health-providers/te-ao-auahatanga-hauora-maori-maori-health-innovation-fund-2018-2022/te-pataka>

## Media portrayal of Māori and bariatric surgery in Aotearoa/New Zealand

**Authors:** Rahiri JL et al.

**Summary:** This qualitative analysis examined all print and online news articles published in New Zealand between January 2007 and June 2017 that reported stories, opinion pieces or editorials concerning Māori and bariatric surgery. Of the 246 articles that were analysed, 31 (13%) were representative of Māori. Articles were scored on a 5-point scale that assessed the level of reporting as 'neutral' to 'positive' with a mean reporting score of 3.7 (Kappa score of 0.72; 95% CI, 0.66–0.78,  $p < 0.0001$ ). Thematic analysis identified 5 main themes: Attitudes towards bariatric surgery; complexity of obesity and weight loss; access to bariatric surgery; Māori advocacy; and framing of Māori. The major themes that emerged were access to bariatric surgery and attitudes towards bariatric surgery. Māori advocacy was also a common theme that arose largely due to the support of public funding of bariatric surgery championed by Dame Tariana Turia. Few narratives described equity of bariatric surgery provision and equitable outcomes following bariatric surgery for Māori.

**Comment:** See next paper.

**Reference:** *N Z Med J.* 2018;131(1479):72-80

[Abstract](#)

## Attrition after acceptance onto a publicly funded bariatric surgery program

**Authors:** Taylor T et al.

**Summary:** These researchers retrospectively analysed data from 704 New Zealanders referred for and accepted onto a publicly funded bariatric surgery from 2007 to 2016. A total of 326 completed surgery successfully; 378 left the programme before surgery, corresponding to an attrition rate of 54%. Attrition differed significantly by gender (men 66% vs 45% women;  $p < 0.001$ ) and ethnicity (39% in NZ Europeans, 50% in Māori, and 73% in Pacific patients;  $p < 0.001$ ). Whereas 2 out of 3 European women proceeded to surgery, compared with  $< 1$  in 7 Pacific men. Attrition was associated with having a higher mean BMI and being a smoker. Logistic regression analysis revealed a protective effect of employment against attrition for NZ Europeans ( $p < 0.004$ ), which was not apparent among Pacific patients.

**Comment:** The pathway into and through bariatric surgery is complex. As these studies suggest, the response of the health systems is affected by wider societal values, including the way society portrays and treats people of various genders, ethnicities, BMIs and work situations. I was a little disappointed to see the recommendation in the second paper for research on a person's culture, as a potential barrier, when there was little evidence to suggest that this was an issue. Perhaps a focus on the culture of our society, and how we view bariatric surgery, is warranted.

**Reference:** *Obes Surg.* 2018;28(8):2500-7

[Abstract](#)

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**Research Review publications are intended for New Zealand health professionals.**

### Independent commentary by Dr Matire Harwood

Dr Matire Harwood (Ngapuhi) has worked in Hauora Māori, primary health and rehabilitation settings as clinician and researcher since graduating from Auckland Medical School in 1994. She also holds positions on a number of boards, committees and advisory groups including the Health Research Council. Matire lives in Auckland with her whānau including partner Haunui and two young children Te Rangijura and Waimarie.



## Ethnic disparities in community antibacterial dispensing in New Zealand, 2015

**Authors:** Whyler N et al.

**Summary:** Significant ethnic disparities exist in New Zealand in the incidence of various infectious diseases, including rheumatic fever, pneumonia and skin infections, all of which are substantially higher among Pacific and Māori peoples, when compared with people of European, Middle Eastern, Latin American or African, or Asian ethnicity. Antimicrobial stewardship interventions to improve antibiotic prescribing need to take account of these ethnic differences in the rates of infectious diseases. If these disparities are ignored, the health of some ethnic groups may be negatively affected. These researchers obtained demographic data on all patients registered with a general practice in New Zealand and on all community pharmacy antibacterial dispensings during 2015, in order to inform the development of antimicrobial stewardship interventions in New Zealand. The rate of community antibacterial dispensing for the total population surveyed was 3.01 dispensings per 1,000 population per day, and was 3.49 for Pacific, 3.23 for Māori, 3.02 for European, 2.70 for Middle Eastern, Latin American and African, and 2.35 for Asian people. Thus, even though the rates of many infectious diseases are very much higher among Pacific and Māori peoples than several other ethnicities in New Zealand, rates of antibiotic dispensings are only moderately higher for Pacific and Māori. In all ethnic groups, the rate of community antibacterial dispensing increased with increasing socioeconomic deprivation. Seasonal variation in antibacterial dispensing ranged between 34% in Asian people and 24% in European people.

**Comment:** With moves to discourage inappropriate prescribing of antibiotics, this study provides important evidence regarding antibiotic prescriptions for Māori and Pacific peoples.

**Reference:** *N Z Med J.* 2018;131(1480):50-60

[Abstract](#)

## Controlled before-after intervention study of suburb-wide street changes to increase walking and cycling: Te Ara Mua-Future Streets study design

**Authors:** Macmillan AK et al.

**Summary:** This article describes the design of a transdisciplinary project termed Te Ara Mua-Future Streets, intended to integrate community, policy and research knowledge and assess a range of outcomes. It is an area-level randomised, controlled before-after intervention study based in Auckland and aims to assess the effect of retrofitting street changes at the suburb scale on multiple health, social and environmental outcomes. The study is focusing particularly on identifying factors that improve walking and cycling to local destinations in low-income neighbourhoods and on reducing social and health inequities experienced by Māori and Pacific people. Qualitative system dynamics modelling was used to develop a causal theory for the relationships between active travel, walking and cycling infrastructures. Auckland Transport, the regional transport planning and investments authority, helped to develop the project and committed to funding the intervention construction. Auckland Transport and the study researchers have triangulated best evidence from the literature, transport policy makers, urban design professionals and community knowledge to develop interventions that were contextually and culturally appropriate. Direct observation and random sample face-to-face surveys are measuring a wide range of objective outcome measures: road-user behaviour, changes to travel mode for short trips, physical activity, air quality, road traffic injuries, greenhouse gas emissions, and perceptions of neighbourhood social connection, safety, and walking and cycling infrastructure.

**Comment:** A really important study that looks at the design of our environments, and prioritises Māori, as tangata whenua and to address current inequities in health, social and environmental outcomes. I look forward to seeing the results.

**Reference:** *BMC Public Health.* 2018;18(1):850

[Abstract](#)

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## Comprehensive diabetes self-management support from food banks: a randomized controlled trial

**Authors:** Seligman HK et al.

**Summary:** This US study examined whether food bank provision of self-management support and diabetes-appropriate food improves glycaemic control among clients with diabetes. The researchers screened 5,329 adults for diabetes at 27 food pantries affiliated with food banks in Oakland (California), Detroit (Michigan), and Houston (Texas), between October 2015 and September 2016. A total of 568 participants with haemoglobin A1c (HbA1c)  $\geq 7.5\%$  were randomised to waitlist control or a 6-month intervention including food, diabetes education, health care referral, and glucose monitoring. At 6 months, the intervention was associated with significant improvements from baseline in food security (RR 0.85; 95% CI, 0.73 to 0.98), food stability (RR 0.77; 95% CI, 0.64 to 0.93), and fruit and vegetable intake (risk difference [RD] 0.34; 95% CI, 0.34 to 0.34). However, there were no such improvements at 6 months in measurements of self-management (depressive symptoms, diabetes distress, self-care, hypoglycaemia, self-efficacy) or HbA1c (RD 0.24; 95% CI, -0.09 to 0.58).

**Comment:** See next paper.

**Reference:** *Am J Public Health. 2018;108(9):1227-34*

[Abstract](#)

## Reductions in national cardiometabolic mortality achievable by food price changes according to Supplemental Nutrition Assistance Program (SNAP) eligibility and participation

**Authors:** Wilde PE et al.

**Summary:** This comparative risk analysis sought to quantify how food pricing policies to subsidise healthy foods and tax unhealthy foods could affect US cardiometabolic disease (CMD) mortality, overall and by Supplemental Nutrition Assistance Program (SNAP) eligibility and participation. The researchers obtained national data on diet from the National Health and Nutrition Examination Survey (2003–2012) and mortality, using records from the mortality-linked National Health Interview Survey, and meta-analyses of policy-diet and diet-disease relationships. Calculations revealed that a national 10% price reduction on fruits, vegetables, nuts and whole grains could prevent an estimated 19,600 CMD deaths/year, including 2.6% of all CMD deaths among SNAP participants, 2.7% among SNAP-eligible non-participants and 2.6% among SNAP-ineligible non-participants. Moreover, adding a national 10% tax on sugar-sweetened beverages and processed meats would prevent 33,700 CMD deaths/year, including 5.9% of all CMD deaths among SNAP participants, 4.8% among SNAP-eligible non-participants and 4.1% among SNAP-ineligible non-participants. Adding a SNAP-targeted 30% subsidy for the same healthy foods would offer the largest reductions in both CMD mortality and disparities.

**Comment:** I've been part of a research project for Māori and Pacific people with type 2 diabetes. An important part of the programme is linking whānau with social support. Our data shows that the majority of the 'social' referrals have been to the local foodbank. So I found these two papers incredibly useful, demonstrating that 'foodbanks' can empower whānau beyond just putting kai on the table (which is important in itself); and that I can advocate for more to be done 'upstream'.

**Reference:** *J Epidemiol Community Health. 2018;72(9):817-24*

[Abstract](#)

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## Do community-dwelling Māori and Pacific peoples present with dementia at a younger age and at a later stage compared with NZ Europeans?

**Authors:** Cullum S et al.

**Summary:** This investigation examined routinely collected clinical data from a memory assessment service in South Auckland, in order to assess the presentation of dementia in the major New Zealand ethnic groups. The analysis included 360 patients presenting to the memory service with a new diagnosis of dementia. The cohort included 142 New Zealand Europeans (mean age, 79.2 years), 43 Māori (mean age, 70.2 years), 126 Pacific (mean age, 74.3 years), and 49 other ethnicities (mean age, 78.0 years). After adjusting for gender and dementia subtype, the analyses revealed that Māori and Pacific patients were 8.5 and 5.3 years younger, respectively, than New Zealand European patients ( $p < 0.0001$ ). After adjusting for age and gender, the researchers found that Pacific peoples tended to present with more advanced dementia (OR 1.63; 95% CI, 0.98 to 2.70;  $p = 0.06$ ). Dementia subtypes did not differ greatly by ethnicity.

**Comment:** Great to have preliminary data about this important health issue. As the authors suggest, a more formal study is required. Such information will support service development for Māori and Pacific peoples, and will be vital for whānau who are often caring for their loved ones with memory loss in the community.

**Reference:** *Int J Geriatr Psychiatry. 2018;33(8):1098-104*

[Abstract](#)

## Indigenous adolescents' perception of an eMental Health Program (SPARX): Exploratory qualitative assessment

**Authors:** Shepherd M et al.

**Summary:** Outcomes are described from a study that explored Māori adolescents' (taitamariki) opinions about the SPARX (Smart, Positive, Active, Realistic, X-factor thoughts) programme, a computerised intervention developed in New Zealand to treat mild-to-moderate depression in young people. The intervention engages users in a virtual 3D environment where they must complete missions to progress to the next level. Each level presents challenges and puzzles to complete. It was designed to appeal to all young people in New Zealand and incorporates several images and concepts that are specifically Māori. Six taitamariki participated in semi-structured interviews after they had completed work with the SPARX resource. They considered SPARX to be helpful. They viewed the Māori designs from the SPARX game as appropriate and useful, and they considered that having the ability to customise the SPARX characters with Māori designs was beneficial and this appeared to enhance cultural identity. These factors helped young people to feel engaged with SPARX which, in turn, helped them to learn relaxation and cognitive restructuring skills. Overall, using SPARX improved mood and increased levels of hope amongst the participants. There were some reports of SPARX being used by wider whānau members, with beneficial effects.

**Comment:** I loved the fact that the resource improved mood and gave taitamariki hope and that it was used by wider whānau.

**Reference:** *JMIR Serious Games. 2018;6(3):e13*

[Abstract](#)



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